

links so long as the required earth station separations could be maintained."³⁴

In light of the extensive technical analysis undertaken in TG 4/5 concerning the feasibility of LEO MSS feeder links sharing with GSO FSS systems, the Commission should disregard the comments of National Public Radio regarding the "potential for interference posed by spectrum sharing between low earth orbit users (LEO) and geosynchronous (GEO) traffic" and its request that the Commission "remain vigilant . . . in guarding against the serious interference threat to C-band satellite users (especially SCPC users) posed by specific frequency sharing between LEO and GEO operations." NPR Comments, at 4. The use of FSS bands by GSO systems and services is being fully considered within TG 4/5 and, as indicated above, preliminary conclusions are that sharing, at least in the reverse band direction, with C- and Ku-band frequencies, is quite feasible.

VII. THE MSS LEO APPLICANTS SHOULD BE REQUIRED TO COMMENCE COORDINATION IMMEDIATELY.

The Commission should immediately commence coordination among the LEO applicants in this proceeding in order to use the spectrum available most efficiently. Coordination should involve the CDMA applicants and the TDMA/FDMA applicant. However, at this time, the Commission should not adopt an emission limit governing intraservice sharing in the 1610-1626.5 MHz band. The

³⁴ GSO/FSS vs. non-GSO MSS (Reverse), Document 4-5/TEMP/2 (Rev.2), June 8, 1994.

adoption of an emission limit, and/or a guardband between the CDMA systems and the TDMA/FDMA system, requires substantial additional analysis and consideration. Moreover, such action is not needed to resolve this proceeding when all the applicants have essentially agreed on an approach for sharing the 1610-1626.5 MHz band, and so, can be presumed willing to coordinate with each other.

Coordination should follow the procedure recommended in LQP's initial comments, i.e., to establish a timetable for: (1) exchanging information; (2) developing recommendations to the Commission with regard to appropriate maximum downlink PFD spectral density, maximum aggregate EIRP areal spectral density, frequency plans and designated polarization for each system; and (3) Commission determination of these matters in the absence of agreement of the parties. LQP Comments, at 60-62. LQP proposed a process which would initially address these issues among the CDMA applicants, and then encompass technical issues between the CDMA applicants and the TDMA/FDMA applicant.

Similarly, Constellation Communications emphasized the need for such a process, and proposed the use of the procedures recommended by the CDMA applicants during the MSS Above 1 GHz Negotiated Rulemaking. Constellation Comments, at 27-28. LQP agrees with Constellation that such a coordination procedure "must allow full flexibility in utilizing cross polarization and frequency planning techniques to control inter-system interference in order to maximize system capacity and minimize

system costs under the interference sharing scheme." Id. LQP believes that either the approach proposed in its initial comments, or the methodology established during the Negotiated Rulemaking, would provide a useful starting point for this process.

In addition to coordination among the CDMA systems, LQP urges the Commission to institute coordination between the CDMA applicants and the TDMA/FDMA applicant. This coordination should include consideration of the appropriate method of accommodating both CDMA systems and the TDMA/FDMA system in the 1610-1626.5 MHz band.

One aspect of this intrasystem coordination would involve development of emission limitations for the 1610-1626.5 MHz band. Three domains for establishing emission limits apply to use of the 1610-1626.5 MHz band: (1) emissions from the 1610-1626.5 MHz band into the band above 1626.5 MHz allocated to the Maritime Mobile Satellite and Mobile-Satellite Services on a primary basis (used worldwide by INMARSAT); (2) emissions from the 1610-1626.5 MHz band into the adjacent band below 1610 MHz which is allocated to the Aeronautical Radio-Navigation and Radio-Navigation Satellite Service on a primary basis (used by GPS and GLONASS); and (3) individual carrier emissions within the 1610-1626.5 MHz MSS band at the boundary between CDMA and TDMA systems.

Only the second domain would be an appropriate part of this proceeding. LQP has provided detailed input into the development of an out-of-band emission limit to protect the services below

1610 MHz from MSS. The first domain would primarily involve Motorola in coordination with systems operating above 1626.5 MHz and has not been addressed to date. The third domain would involve the LEO MSS licensees and, as LQP discusses in the Reply Technical Appendix, should be addressed in the context of detailed intrasystem coordination and within the process of applications for blanket authority to operate mobile earth stations. Reply Tech. App., at § 1.2.

LQP opposes Motorola's proposed emission limitation to address sharing of the uplink band. See Motorola Comments, at 50-53. Substantial additional study is required, and additional technical discussions and coordination among all the systems must be undertaken, before any emission limitation is adopted which can appropriately address intraservice sharing. LQP's preliminary analysis of Motorola's emission limitations and mask demonstrates that certain assumptions used by Motorola in developing its proposed mask are erroneous or subject to varying interpretations. Moreover, Motorola appears to seek greater protection from the CDMA systems than is provided by either existing Commission out-of-band emission limits or the CTIA standard IS-95 applicable to CDMA cellular terminal operations. See Reply Tech. App., at § 1.2. As proposed by Motorola, the emission limits would effectively place a "guardband" solely in the portion of the uplink band to be used by the CDMA systems.

To resolve the current licensing proceeding, and license systems using the 1610-1626.5 MHz and 2483.5-2500 MHz band, it is

not necessary for the Commission to adopt an out-of-band emission limit addressing intraservice sharing. Indeed, the Commission omitted the emissions mask issue from the NPRM, perhaps because the issue should be raised in the context of a proceeding for issuing blanket licenses for user transceivers. LQP's preliminary analysis of Motorola's proposal for out-of-band emission limits within the uplink band indicates that much more detailed coordination and analysis is needed to develop an appropriate method of permitting both technologies to utilize the band. LQP is convinced that such an approach can be developed, based on extensive additional coordination among the parties, and LQP is willing to work with other system operators to develop emission limitations.

VIII. THE COMMISSION SHOULD ADOPT STRICT IMPLEMENTATION MILESTONES.

As noted in the NPRM, the Commission has historically conditioned grant of satellite station licenses on strict implementation milestones "to ensure that licensees are building their systems in a timely manner and that the orbit-spectrum resource is not being held by licensees unable to or unwilling to proceed with their plans." NPRM, 9 FCC Rcd at 1136, ¶ 84. LQP and other LEO applicants support this policy. See LQP Comments, at 106-12; Motorola Comments, at 68-69; Ellipsat Comments, at 48; TRW Comments, at 174. However, the Commission's goals can be achieved only if compliance with these milestones is strictly enforced. To do that, the Commission should reject certain

recommendations by other LEO applicants which would weaken the milestones policy.

A. Milestone Compliance Should Be Strengthened.

LQP and Motorola advocated making compliance with the implementation milestones even more stringent. See LQP Comments, at 109-11; Motorola Comments, at 68-69. As the Commission is well aware, setting milestones per se is not sufficient to ensure the goals of expeditious system implementation and efficient spectrum usage. Cf. Geostar Positioning Corp., 6 FCC Rcd 2276, 2278 (CCB 1991) (RDSS licensee met "construction" milestones without actually initiating construction). The comments of other applicants suggest that the concerns underlying LQP's and Motorola's comments -- and circumstances such as Geostar -- must be taken into account.

Both TRW and Ellipsat appeared to support strict implementation milestones. See Ellipsat Comments, at 48 ("milestones should . . . be designed to ensure progress in system implementation"); TRW Comments, at 175 (milestones should be "firm and intractable enough to facilitate both the development of the service and efficient use of the limited available spectrum"). However, both also recommended relaxing the milestones in ways which have the potential to vitiate their effectiveness.

For example, Ellipsat opposes the proposed milestone requiring commencement of construction of all authorized

satellites within three years. Ellipsat Comments, at 48-49. According to Ellipsat, such a requirement would preclude "progressive deployment" of a system and limit the flexibility of a licensee to construct satellites in stages. Id. As an alternative, Ellipsat proposes requiring licensees to initiate commercial service within four years of grant of an MSS license without regard to whether the entire authorized constellation has been constructed. Id.

TRW also recommends "flexibility" in construction milestones. TRW Comments, at 174-75. It proposes that licensees be given a "guaranteed opportunity" for an extension of time to meet the milestones after some satellites have been launched. Id. at 176-77. It also suggests that the Commission issue orders to show cause why a license should be revoked rather than declaring a license null and void if the milestones are not met. Id. at 178-79.

The Commission should reject Ellipsat's and TRW's attempts to weaken compliance with the proposed implementation milestones. The Commission already has in place procedures which will accommodate these applicants' concerns without gutting the milestones. In the NPRM itself, the Commission recognized that its proposed milestones may not be appropriate for all systems and so it would consider different schedules on a case-by-case basis "if an applicant can concretely demonstrate that the size or complexity of its system warrants some additional time in

which to complete construction of the system or to launch all the system's satellites." NPRM, 9 FCC Rcd at 1136, ¶ 84.

In this proposal, the Commission has identified the operative standard as requiring an applicant to "concretely demonstrate" that its system has a need for a different set of milestones.³⁵ LQP believes that the Commission should adhere to this case-by-case approach which includes the flexibility sought by Ellipsat and TRW -- but does not require a universal weakening of the milestones. Grant of extension requests should be based on specific facts rather than vague and premature fears concerning the difficulty of construction and launch of a LEO system.

LQP also believes that the Commission should retain the "null and void" standard for failure to meet implementation milestones. Because milestones are dates certain,³⁶ a licensee should not have any difficulty in anticipating whether a milestone would be met or whether a request for extension should be filed. In any event, the Commission's policies on granting extensions are presumably not so unduly harsh as to preclude

³⁵ This policy could be used to consider schedules from small businesses for constructing and launching global MSS systems and thus address another of Ellipsat's concerns. Cf. Ellipsat Comments, at 41.

³⁶ TRW suggested that the Commission issue a Public Notice of the start date for each MSS Above 1 GHz system's 10-year license term, and that the licenses start six months after launch of the system's first satellite. TRW Comments, at 170-71. Because each Commission license is a public record, and notice of its grant is released in a Public Notice, there is no need for the Commission to issue a special notice specifying a start date.

consideration of the equities involved in missing a specific milestone. Again, these concerns are best addressed on a case-by-case basis.

An authorization to construct, launch and operate an MSS Above 1 GHz system would give an operator access to a valuable spectrum resource. The proposed implementation milestones are designed to ensure that resources are directed to the project commensurate with the value of the license. These milestones should not be lightly modified, nor freely extended, and then only for specific reasons. Accordingly, the firm implementation milestones proposed by the Commission should be adopted for LEO MSS systems.

B. The Commission Should Adopt a Milestone for Initiation of Service But Not for Construction of Ground Segment.

LQP, Ellipsat and Motorola have all proposed new milestones; those proposed by LQP and Ellipsat would improve the Commission's licensing policies, while that of Motorola would not.

LQP does not support Ellipsat's efforts to relax the implementation milestones, but it does support Ellipsat's recommendation that the Commission establish a new milestone for introduction of commercial service within four years of grant of license. See Ellipsat Comments, at 48. As LQP recognized in its comments, the Commission has proposed milestones for initiation and completion of construction, but none for fulfillment of service standards and initiation of commercial operations. See LQP Comments, at 109-10. As Ellipsat states, this requirement

"would achieve the Commission's objective of expeditious system implementation and would be a straightforward, definable milestone." Ellipsat Comments, at 49. Ellipsat's proposal would complement LQP's recommendation that one year after the six-year milestone for launch of all satellites, each licensee certify to the Commission that its system is in compliance with the global and U.S. coverage standards. See IOP Comments, at 110.

On the other hand, the Commission should reject Motorola's proposal to institute a milestone of establishing "ground segment infrastructure necessary to permit provision of Mobile Satellite Service in countries representing at least 75% of the surface area and population of the world within six years of the grant of its space station license." Motorola Comments, at 20. Such a requirement is irrelevant and unnecessary and would embroil the Commission in administrative complexities which far outweigh its usefulness.

First, adoption of Motorola's proposal would drastically change the character of the MSS license to be issued by the Commission. Obviously, a space station licensee does not have to be the licensee and/or operator of the ground stations used to provide service to users. However, conditioning an MSS license on the milestone proposed by Motorola would impose a de facto requirement of constructing the entire MSS system. The proposal is thus inconsistent with the Commission's current policies on licensing space stations and earth stations separately, and could

not be adopted without issuing a Notice of Proposed Rule Making to revise Part 25 of the Commission's Rules.

Second, contrary to Motorola's explanation, the proposed milestone for a terrestrial infrastructure does not follow from the MSS LEO global coverage eligibility standard. The Commission's global coverage requirement is a design standard to ensure "the potential domestic public interest benefits that an expanded U.S. role in global communications infrastructure may produce." NPRM, 9 FCC Rcd at 1106, ¶ 23. Requiring a global design ensures that applicants build a system necessary to fulfill the Commission's goal. However, there is no a priori reason why construction of ground segment infrastructure serving 75% of the world's surface area within six years automatically benefits domestic users. The Commission cannot predict what licensing standards or policies other countries of the world will apply to U.S. MSS systems, nor how long it will take to obtain such foreign authorizations. While it is important to have milestones, it is not useful to have milestones which no one knows can be met.

Third, for commercial reasons, system operators will be striving to achieve the standard proposed by Motorola for terrestrial infrastructures. If they cannot, then the presence of such a milestone is irrelevant.

Motorola has presented no justification for the terrestrial infrastructure milestone nor provided an explanation of how it

would benefit the public. Accordingly, the Commission should reject it.

C. TRW's Definition of "Construction" Is Unnecessary.

In the NPRM, 9 FCC Rcd 1136-37, ¶ 85, the Commission suggested that initiation of "construction" was fulfilled by execution of a non-contingent construction contract. TRW has interpreted this as not including construction by the applicant itself and has proposed definition for "construction" to remedy this perceived defect. TRW Comments, at 180.

The Commission should reject this proposal. Fulfillment of the construction milestones is governed by the reporting requirement of Section 25.143(e)(2). As proposed in the NPRM -- and as redrafted by LQP, see LQP Comments, at 111 -- this rule makes reference only to the fact of construction, not its source. TRW's proposal would add an irrelevant and complicated requirement without any corresponding benefit.

IX. THE COMMENTS CONFIRM THAT MSS ABOVE 1 GHZ SHOULD BE DESIGNATED AS A PRIVATE MOBILE RADIO SERVICE AND SYSTEM OPERATORS SHOULD BE DEEMED NON-COMMON CARRIERS.

The Commission asked for comment on whether MSS should be classified as a "commercial mobile radio service" ("CMRS") or as a private, non-common carrier service. NPRM, 9 FCC Rcd at 1132-34, ¶¶ 79-81. It tentatively decided to adopt the distinction it had developed in licensing other satellite systems: Provision of space segment capacity alone would be classified as a private

service, while service to end users would be regulated as a common carrier service. Thus, under proposed Section 20.9(a)(10), MSS providers would be treated as private carriers, except where they provide for-profit, interconnected service to the public.

The Commission's tentative approach received unanimous support from all MSS LEO applicants. Motorola Comments, at 61-67; TRW Comments, at 152-68; IOP Comments, at 96-101; Constellation Comments, at 60-61; Ellipsat Comments, at 45-46; see also AirTouch Comments, at 3-11.³⁷ Their comments provide an ample record basis for finding that private carrier classification of licensees providing space segment capacity is in the public interest. That classification is fully consistent with new Section 332 of the Communications Act, and with court and Commission precedent.³⁸ It will permit MSS licensees needed flexibility to design their systems. And, it will ensure that the public, purchasing MSS service as end users, will have available the remedial provisions of the Act.

The comments also demonstrate that imposing common carrier status on MSS systems is not only unnecessary for a new service characterized by multiple entry and competition, but would

³⁷ AMSC did not address the regulatory classification issue.

³⁸ TRW reviews this precedent in detail. TRW Comments, at 153-160. Indeed, to adopt blanket common carrier status for MSS systems would be an unjustified departure from FCC precedent, and would also appear to violate NARUC v. FCC, 525 F.2d 630 (D.C. Cir. 1976).

seriously threaten their viability. It would greatly inhibit financing and foreign investment, and would complicate arrangements for gateway facilities and terrestrial distribution in both the United States and abroad.³⁹

Significantly, of the two dozen other comments filed in response to the NPRM, none argued for blanket common carrier status for MSS systems. Many of these parties are potential end-users who urged the Commission to act quickly to license MSS, but did not advocate CMRS status.⁴⁰

Only two commenters asked that service requirements in the nature of common carrier obligations be imposed. National Public Radio asked that MSS be required "to provide capacity to public service organizations, including public telecommunications service providers, at rates not to exceed the application's direct costs for providing such service." NPR Comments, at 3. NPR devotes two sentences to this recommendation, which should be quickly rejected. Putting aside the obvious ambiguities that it creates (Who would qualify for "at-cost" rates? What are "direct costs"?), the proposal would thrust the Commission into price

³⁹ Motorola seconds LQP's concerns about the impact of common carrier status on MSS licensee's ability to obtain gateways: "[I]t would be technically impossible for IRIDIUM system space segment capacity to be offered indifferently to the public because only a small number of gateways in the U.S. and around the world can access the satellites at the same time." Motorola Comments, at 64.

⁴⁰ See, e.g., Comments of Conus, Travelworld, the Association of America's Public Television Stations and the Public Broadcasting Service, Southern California Edison, the State of Texas, the National Association of EMS Physicians, and Honeywell.

regulation of mobile services -- something it has properly avoided for every other mobile service. NPR neither provides any legal basis for its proposal nor explains why MSS carriers should be burdened with complex pricing limits on their services.

Mobile Datacomm Corp. states that it "will not take a position" on regulatory classification, but then asks that LEO licensees "be required to make 'bulk capacity' space segment available for resale on reasonable terms and conditions." MDC Comments, at 14. Its cursory treatment of this proposal fails to reconcile it with the Commission's previous detailed analysis of whether satellite services should be common carriage⁴¹ or with the new Section 332 of the Act.⁴² Moreover, its proposal obviously derives from self-interest rather than public interest because Mobile Datacomm holds a temporary RDSS license which will expire when the "Big LEO" systems are licensed. See Special Temporary Authorization (Aug. 19, 1993), renewed by letter (Mar. 8, 1994). For the reasons set forth in the comments of Motorola, TRW, LQP and others, requiring MSS licenses to hold themselves out to specific third parties such as Mobile Datacomm would impose constraints that are simply unnecessary in a competitive market.

In sum, the Commission should confirm its tentative approach to regulatory classification, and adopt new Section 20.9(a)(10)

⁴¹ See, e.g., Second Report and Order, 2 FCC Rcd 485, 489-90 (1987); NVNG MSS Order, 8 FCC Rcd at 8456-57.

⁴² See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, § 6002(b), 107 Stat. 312, 392.

with the clarification LQP suggested in its comments. That is, CMRS should be defined as including:

"Any mobile satellite service offering the provision of commercial mobile radio service directly to end users except that mobile satellite licensees may provide space segment capacity to other parties on a non-common carrier basis."

X. THE COMMISSION SHOULD ADOPT REVISED SYSTEM LICENSING RULES IN ORDER TO FACILITATE INTRODUCTION OF MSS LEO SYSTEMS.

The Commission's proposed licensing rules for LEO MSS systems received general support among the LEO applicants. LQP and other applicants did, however, recommend a few relatively minor modifications to the proposals which would facilitate the operation of LEO MSS systems. Below, LQP has summarized these recommendations and drafted revised rules incorporating these suggestions.

A. License Term. The applicants pointed out that the proposed 10-year term for LEO MSS licenses was justified because of the large costs which would be incurred in developing both the space segment and terrestrial network used with the space segment. See Ellipsat Comments, at 47; TRW Comments, at 170. Ten years is a minimum time period to allow a licensee to achieve a return on its investment in the space system. Accordingly, the 10-year license term specified in proposed Section 25.120(d) (2) should be retained.

With respect to license start date, proposed Section 25.120(d) (2) provides substantial flexibility, and so, TRW's proposed start date of six months after launch of a system's

first satellite should be rejected. According to the Commission's proposal, for the license term to begin, the permittee's first satellite must be "successfully" placed into orbit and its operations must "fully conform" to the terms and conditions of the space station authorization. Proposed 47 C.F.R. § 25.120(d)(2). The rule as written incorporates time for testing of satellite operations, on which TRW bases its recommendation. Accordingly, TRW's suggestion is redundant.

B. Blanket License. LQP and Constellation both pointed out that the proposed licensing rules could be made more efficient by clarifying what satellites are covered by the "blanket" authorization. See LQP Comments, at 102-03; Constellation Comments, at 63. The proposed LEO systems have applied to construct constellations of satellites of various numbers. Until this constellation is in place, there can be no "replacement" satellites as such. Yet, the NPRM suggests that an applicant may need to obtain a separate authorization to replace a satellite lost-on-launch before the authorized constellation has been completed. See NPRM, 9 FCC Rcd at 1134-35, ¶ 82; cf. Proposed 47 C.F.R. § 25.143(c).

To resolve this ambiguity, LQP and Constellation both recommended that the Commission authorize a licensee to construct and launch a constellation of operating satellites. LQP supports Constellation's suggestion that the system license authorize construction, launch and operation of the specified number of satellites needed to complete the system and in-orbit spares and

that the Commission waive any requirement for construction permits and launch authorizations for additional replacement satellites or in-orbit spares, provided that the total number of satellites in actual operation does not exceed this specified number. Constellation Comments, at 63.

C. Replacement Satellites. To facilitate the previous recommendation, the Commission should abandon the approach that replacement satellites be formally authorized unless "technically identical" to those authorized under an initial license. Four LEO MSS applicants objected to this approach. See LOP Comments, at 105-06 (proposing that a "non-conforming" satellite is one which "incorporates a modification which would result in modification of the existing coordination parameters and/or terms and conditions of station authorization"); Motorola Comments, at 69-70 (recommending "functionally equivalent" standard); Ellipsat Comments, at 47 ("no new interference" standard); Constellation Comments, at 61-62 (standard for replacements of "with same particulars of operation").

As these comments point out, the typical lifespan of a LEO satellite is from 5-7 years. Therefore, each authorized satellite will generally be replaced at least once during the 10-year license term. System operators should have the opportunity to construct and launch replacement satellites, incorporating the most recent technology. The administrative burdens on the applicants and Commission Staff imposed by continuous replacement satellite applications should be avoided as long as the

replacement does not change the terms and conditions of the operator's license or modify the coordination parameters of the system.

Moreover, as LQP pointed out in its comments, there is no need to apply the replacement certification requirement to launches until after the licensee's full constellation is operational. See Proposed 47 C.F.R. § 25.143(d). Accordingly, LQP recommends that the Commission restrict certification of "replacement" satellites to those satellites launched to replace in-orbit failures from the full constellation. The MSS "blanket authorization" would thus allow a licensee to construct and launch a constellation of operating satellites, and so, would be consistent with and preserve the efficiency of the blanket licensing approach.

In order to take advantage of the efficiencies offered by a blanket authorization, LQP recommends that the Commission revise proposed Sections 25.143(a) and (c) to read as follows:

25.143

- (a) System licenses: Applicants authorized to construct and launch a system of non-geostationary satellite orbit satellites will be awarded a single "blanket" license covering the operation of a specified number of space stations.

...

- (c) Replacement of Space Stations within the System License Term: Licensees of non-geostationary 1.6/2.4 GHz mobile-satellite systems authorized through a blanket license pursuant to paragraph (a) need not file separate applications to construct, launch and operate replacement or in-orbit spare satellites which do not affect the parameters or terms and conditions of the station authorization.

D. Timing of Applications for Replacement Systems. LQP agrees with Constellation's proposed modification to Section 25.120(e). As Constellation recognizes, the license terms of the MSS LEO systems may not coincide, and so, operators may be filing replacement applications at different times. Constellation Comments, at 64. Under these circumstances, a licensee should have the opportunity to file a renewal application earlier than required in response to a cut-off notice of a potentially mutually-exclusive application.

Section 25.120(e) should be revised accordingly to account for these concerns regarding system replacement applications:

25.120

- (e) Renewal of Licenses. Applications for renewals of earth station licenses must be submitted on FCC Form 405 (Application for Renewal of Radio Station License in Specified Services) no earlier than 90 days, and no later than 30 days, before the expiration date of the license. Applications for space station system replacement authorization for non-geostationary orbit satellites in the NVNG MSS service shall be filed no earlier than 90 days, and no later than 30 days, prior to the end of the seventh year of the existing license term. Applications for space station system replacement authorization for non-geostationary orbit satellites in the 1.6/2.4 MSS service shall be filed no earlier than 90 days, and no later than 30 days, prior to the end of the seventh year of the existing license term. Renewal applications in the NVNG and 1.6/2.4 MSS services may be filed at an earlier date if required to be filed by a cut-off date specified by the Commission with respect to a potentially mutually-exclusive satellite system application or renewal.

E. Replacement Expectancy. Some applicants recommended that the Commission adopt a "renewal expectancy" for MSS LEO

systems. See TRW Comments, at 169-73; Ellipsat Comments, at 47. LQP agrees that the enormous investment in MSS LEO systems warrants an expectancy that a blanket MSS license will be renewed.

The Commission has stated that a renewal will be granted for MSS systems "if the frequencies remain available for use by such systems." NPRM, 9 FCC Rcd at 1135 n.134. LQP concurs that MSS licenses should be renewed if the frequencies remain available. However, the Commission should consider grant of a replacement expectancy to MSS licensees in the event that they must compete for other frequencies for their replacement systems. The Commission should place considerable reliance on an MSS operator with a strong record of service to the public and regulatory compliance over a new applicant. A replacement expectancy would provide a means to recognize such a preference. Accordingly, LQP recommends provision of a "replacement expectancy" if renewal of an operator's license based on the availability of spectrum is somehow impaired.

F. Reporting Requirements. In its comments, LQP stated it supported in principle the annual reporting requirements proposed in Section 25.143(e)(1). See LQP Comments, at 115-16. TRW and Motorola suggested that these requirements be substantially modified because the information requested would be proprietary. Motorola Comments, at 70; TRW Comments, at 188-93. TRW suggested that the proposed global and U.S. coverage standards for MSS Above 1 GHz would substitute for the reporting requirements. See

TRW Comments, at 188-89. Obviously, however, whether the technical design of a system meets the geographic coverage requirements for MSS Above 1 GHz has no bearing on the monitoring and evaluation of spectrum usage and service levels which the reporting requirements are designed to address. See NVNG MSS Order, 8 FCC Rcd at 6332. TRW has offered no valid rationale for elimination of the reporting requirements.

LQP agrees, however, with Motorola and TRW that such information may include commercially sensitive, proprietary information, and, to that extent, should be protected from public disclosure. See TRW Comments, at 190-93. The Commission already has in place regulations for filing commercially sensitive information. See 47 C.F.R. § 0.459. The application of these rules to these reports should be sufficient to resolve TRW's concerns.

G. Milestone Reports. Proposed Section 25.143(e) (2) requires each applicant to certify to the Commission that implementation milestones have been met. Both LQP and Motorola recognized that simple certification is generally insufficient to demonstrate progress toward system implementation. See LQP Comments, at 110-11; Motorola Comments, at 68-69. Unless the Commission requires demonstration of actual progress toward construction of satellites and implementation of system operations, its milestones do not serve the purpose for which they are intended. LQP recommends adoption of its proposed revision to Section 25.143(e) (2). LQP Comments, at 111.

H. 1.6/2.4 GHz MSS Earth Station Licensing. LQP agrees with Constellation as to operation of earth stations for MSS Above 1 GHz. See Constellation Comments, at 64-66. Section 25.115(d) (3) should be modified as recommended by Constellation (at Appendix A, ¶ 1), because fixed-gateway, Telemetry, Tracking & Command (TT&C) and Network Control Centers will generally be licensed to the space segment operator rather than a service vendor. Similarly, Constellation's proposed Section 25.136(b) (at Appendix A, ¶ 3) provides a needed clarification of the Commission's Rule.

LQP also agrees with Constellation that proposed Sections 25.203(j)-(k) should more closely track the language of the recommendations of the NRC. See Constellation Comments, at 65-66; Appendix A, at ¶ 5. Section 25.203(j) is based on an NRC recommendation for LEO MSS systems using steerable, narrow beam feeder link antennas operating with Ka-band feeder links. It is therefore inappropriate to impose these requirements on other systems not using such antennas and operating in other feeder link bands as LQP and Constellation propose. The NRC basis for Section 25.203(k) was intended only for earth station coordination; therefore, including coordination requirements for space stations is, as Constellation points out, "unnecessary and confusing." Constellation Comments, at 66. Accordingly, LQP recommends adoption of Constellation's modifications to proposed Sections 25.203(j)-(k).

I. Distress & Safety. The LEO applicants commenting on proposed Section 25.143(f) all supported the extent of the obligations imposed and the language of the rule itself. See LQP Comments, at 116-17; TRW Comments, at 193-94; Motorola Comments, at 68. However, several non-applicant commenters suggested that additional emergency response obligations be imposed upon MSS systems. See, e.g., Texas Advisory Comm'n Comments (enhanced 911; caller ID); U.S. Coast Guard Comments (same); Nat'l Comm. System Comments (consideration of National Security and Emergency Preparedness telecommunications); COMSAT Comments, at 14 (maritime distress and safety; participation in Global Maritime Distress and Safety System).

LQP has stated that it would provide priority to distress radiocommunications in accordance with Sections 321(b) and 359 of the Communications Act, as proposed by the Commission. LQP Comments, at 116. And, LQP certainly plans to cooperate with emergency response organizations; but, capacity on all MSS systems is limited when compared with wireline and cellular facilities. Therefore, configuring an MSS system to provide particularized emergency and distress communications could substantially increase costs to consumers and constrain the utility of MSS systems as global telecommunications services. Id. Accordingly, the Commission should not impose any additional emergency services on MSS Above 1 GHz systems because they "are not intended to replace existing international safety services." NVNG MSS Order, 8 FCC Rcd at 8458.

XI. CONCLUSION

The Commission has received comments confirming its conclusion that LEO MSS systems "represent an opportunity for the United States to continue its leadership role in promoting global development through enhanced communications infrastructures and services." NPRM, 9 FCC Rcd at 1097, ¶ 4. LQP is ready to implement its system, and urges the Commission to adopt final rules (with the modifications suggested in LQP's initial comments and these reply comments) expeditiously. In this way, the United States can maintain its pre-eminent position in the LEO satellite industry, and United States citizens can enjoy the benefits of low-earth orbiting satellite technology in the near future.

Respectfully submitted,

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